

SELECTION & SPECIFICATION DATA

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| Generic Type | Zinc phosphate epoxy polyamide primer. |
| Description | An economical, high build primer or intermediate coat. Cures to hard, tough film with excellent sub-film corrosion resistance. Carboguard 193 has excellent adhesion and better tolerance of field application variables than other types of coatings. It is also recommended for shop application. |
| Features | <ul style="list-style-type: none"> • Primer for protection of structural steel, concrete, equipment and tank exteriors in chemical and food plants, breweries, paper mills and other industries with corrosive conditions • Excellent protection for equipment subjected to impact abrasion, detergents, water, steam and oils • Good flexibility • Good weathering (chalks) • Very good abrasion resistance • Not recommended for splash and spillage of strong solvents or concentrated acids |
| Color | Dark Red and Buff MIO only |
| Finish | Flat |
| Dry Film Thickness | 75 Microns |
| Solid(s) Content | By Volume 50% ± 2% |
| Theoretical Coverage Rates | 6.7m ² /litre at 75 microns NOTE: Material losses during mixing and application will vary and must be taken into consideration when estimating job requirements. |
| Dry Temp. Resistance | Continuous: 93°C (199°F) Non-Continuous: 121°C (250°F) NON-IMMERSION |
| Topcoats | May be topcoated with catalyzed epoxies, vinyls, modified phenolics or others as recommended. |

SUBSTRATES & SURFACE PREPARATION

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| General | Remove any oil or grease from surface to be coated prior to abrasive blasting or power tool cleaning. |
| Steel | Non-immersion: Dry abrasive blast to a near white metal finish in accordance with ISO 8501 Sa2½ to obtain a 25 to 50 micron blast profile. |
| Concrete | Do not coat concrete treated with hardening solutions unless test patches indicate satisfactory adhesion. Do not apply coating unless concrete has cured at least 28 days at 25°C and 50% RH or equivalent time. Apply to properly prepared concrete that was acid etched or sweep sandblasted. |

Carboguard 193

PRODUCT DATA SHEET



PERFORMANCE DATA (TYPICAL VALUES)

| Test Method | System | Results |
|-------------------------------------|---|--|
| Cross Hatch Adhesion ADTM D3359B | Blasted steel 1 Coat Carboguard 193 1 Coat Carbothane 134 | 5B |
| Direct Impact ASTM 2794 | 1 Coat Carboguard 193 | 2.26 Nm |
| Pencil Hardness ASTM D5363 | 1 Coat Carboguard 193 | 2H |
| Salt Fog ASTM B117 | 1 Coat Carboguard 193 | 450 Hours 1mm undercreep at scribe; rust scribe; no blisters plane |
| Water Immersion ASTM D870 | 1 Coat Carboguard 193 | 96 Hours No blisters; softening; cracking |

MIXING & THINNING

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|-----------------|---|
| Mixing | Power mix separately, then combine and mix in the below proportions. |
| Thinning | Thin up to 25% by volume with Thinner # 2. NOTE: Use of thinners other than those supplied or approved by StonCor Africa may adversely affect product performance and void product warranty, whether expressed or implied. |
| Ratio | Part A: 5 Litre Part B: 5 Litre |
| Pot Life | 12 Hours at 25°C and less at higher temperatures. Pot life ends when coating loses body and begins to sag. |

APPLICATION EQUIPMENT GUIDELINES

Listed below are general equipment guidelines for the application of this product. Job site conditions may require modifications to these guidelines to achieve the desired results.

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| Spray Application | Use sufficient air volume for correct operation of equipment. Use a 50% overlap with each pass of the gun. On irregular surfaces, coat the edges first, making an extra pass later. |
| Conventional Spray | Use a 10mm minimum I.D. material hose. Hold gun 300 to 350mm from the surface and at a right angle to the surface. Gun: 905 Spray Gun Fluid Tip: 1.8mm Air Cap: 905-PV |
| Airless Spray | Use a 10mm minimum I.D. material hose. Hold gun approximately 450 to 500mm from the surface and at a right angle to the surface. Gun: TRITECH T360 Spray Gun Pump: 47:1 * Teflon packings are recommended and are available from pump manufacturer. Use a .013" to .017" tip with 2000 psi (138 bar). |
| Brush & Roller (General) | For small areas or touch-up only. Use a medium, natural bristle brush with full strokes. Avoid rebrushing. Use short nap mohair roller with phenolic core. |

APPLICATION CONDITIONS

| Condition | Material | Surface | Ambient | Humidity |
|-----------|-------------|--------------|--------------|----------|
| Minimum | 13°C (55°F) | 10°C (50°F) | 10°C (50°F) | 0% |
| Maximum | 32°C (90°F) | 43°C (109°F) | 43°C (109°F) | 90% |
| Optimum | 23°C (73°F) | 23°C (73°F) | 23°C (73°F) | |

Do not apply when the surface temperature is less than 3°C above the dew point.
Special thinning and application techniques may be required above or below normal conditions.

CURING SCHEDULE

| Surface Temp. | Dry to Touch | Final Cure | Between Coats |
|---------------|--------------|------------|---------------|
| 10°C (50°F) | 120 Minutes | 12 Days | 24 Hours |
| 16°C (61°F) | 80 Minutes | 6 Days | 12 Hours |
| 25°C (77°F) | 45 Minutes | 2 Days | 6 Hours |
| 32°C (90°F) | 30 Minutes | 2 Days | 3 Hours |

* NOTE: If allowed to weather, chalking should be removed by light sanding followed by water washing and then allowed to dry thoroughly prior to topcoating.

Curing Details | Relative Humidity: 50%

CLEANUP & SAFETY

Cleanup | Use Thinner # 2

Safety | Read and follow all caution statements on this product data sheet and on the material safety data sheet for this product. Hypersensitive persons should wear protective clothing, gloves and use protective cream on face, hands and all exposed areas.

Ventilation | When used as a tank lining or in enclosed areas, thorough air circulation must be provided during and after application until the coating is cured. The ventilation system should be capable of preventing the solvent vapour concentration from reaching the lower explosion limit for the solvents used. In addition to proper ventilation, fresh air respirators or fresh air hoods must be used by all application personnel. Where flammable solvents exist, explosion proof lighting equipment must be used. Hypersensitive persons should wear protective clothing, gloves and/or protective cream on face, hands and all exposed areas.

PACKAGING, HANDLING & STORAGE

Shelf Life | 24 Months minimum when stored at 25°C
*Shelf Life: (actual stated shelf life) when kept at recommended storage conditions and in original unopened containers

Shipping Weight (Approximate) | Carboguard 193 (10 Litre): 15.0kg
Thinner # 2 (5 Litre): 4.8kg

Storage Temperature & Humidity | 4 to 43°C
0 to 100%
Store indoors

Carboguard 193

PRODUCT DATA SHEET



PACKAGING, HANDLING & STORAGE

**Flash Point (Pensky
Martens Closed Cup)**

Part A: 8°C
Part B: 16°C
Thinner # 2: 22°C

WARRANTY

To the best of our knowledge the technical data contained herein is true and accurate on the date of publication and is subject to change without prior notice. User must contact Carboline Company to verify correctness before specifying or ordering. No guarantee of accuracy is given or implied. We guarantee our products to conform to Carboline quality control. We assume no responsibility for coverage, performance, injuries or damages resulting from use. Carbolines sole obligation, if any, is to replace or refund the purchase price of the Carboline product(s) proven to be defective, at Carbolines option. Carboline shall not be liable for any loss or damage. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY CARBOLINE, EXPRESS OR IMPLIED, STATUTORY, BY OPERATION OF LAW, OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. All of the trademarks referenced above are the property of Carboline International Corporation unless otherwise indicated.